

What is claimed is:

1. A liquid crystal display device comprising:

a liquid crystal panel;

a housing disposed under the liquid crystal panel, and including a first recess, a second
5 recess, and a protrusion area between the first recess and the second recess;

a frame coupled to the housing and having a display window for accommodating a
display region of the liquid crystal panel, the frame including at least one pair of L-shaped
apertures defining a first protrusion and a second protrusion,

wherein the first protrusion is bent into and engaged with the first recess, and the second
10 protrusion is bent into and engaged with the second recess.

2. The liquid crystal display device as claimed in claim 1, wherein the protrusion area is a
trapezoid area.

3. The liquid crystal display device as claimed in claim 1, wherein the frame is made of metal.

4. The liquid crystal display device as claimed in claim 1, wherein the housing is made of
15 plastics.

5. The liquid crystal display device as claimed in claim 1, wherein the first protrusion and the
second protrusion respectively have a arm connecting to the frame and a terminal, and the
terminal of the first protrusion faces to the terminal of the second protrusion.

6. The liquid crystal display device as claimed in claim 5, wherein the pair of L-shaped
20 apertures are connected to each other to form a T-shaped aperture.

7. The liquid crystal display device as claimed in claim 1, wherein the first protrusion and the
second protrusion respectively have a arm connecting to the frame and a terminal, and the
terminal of the first protrusion is back to the terminal of the second protrusion.

8. The liquid crystal display device as claimed in claim 1, further comprising a printed circuit
25 board and a ground metal sheet, wherein the printed circuit board is disposed in the housing,
and the ground metal sheet has a first terminal portion and a second terminal portion,
wherein the first terminal portion contacts with the printed circuit board, and the second
terminal portion is disposed above one of the first recess and the second recess and the
protrusion area.

9. The liquid crystal display device as claimed in claim 1, wherein the first protrusion has a first hooked terminal and the second protrusion has a second hooked terminal.

10. The liquid crystal display device as claimed in claim 9, wherein the first recess is an arc-shaped recess with a first arc-shaped portion and a second arc-shaped portion coupled with the first arc-shaped portion, and the first hooked terminal is inserted between the first arc-shaped portion and the second arc-shaped portion.

11. The liquid crystal display device as claimed in claim 9, wherein the second recess is a arc-shaped recess with a third arc-shaped portion and a forth arc-shaped portion coupled with the first arc-shaped portion, and the second hooked terminal is inserted between the third arc-shaped portion and the forth arc-shaped portion.